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AFFECTIVE TEMPERAMENTS, WHITE MATTER HYPERINTENSITIES AND SUICIDAL RISK IN PATIENTS WITH MOOD DISORDERS

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**Introduction:** Patients with white matter hyperintensities (WMHs) may be at higher risk for affective disorders and suicidal behaviour and affective temperaments may play a significant role in mood disorders.

**Objectives, aims, methods:** Recently, we conducted a study in a sample of 247 patients with major affective disorders consecutively admitted as psychiatric inpatients.

**Results:** We found that those with higher dysthymia and lower hyperthymia were more likely to have higher BHS scores, more WMHs, higher MINI suicidal risk, and more recent suicide attempts than patients with higher hyperthymia and lower dysthymia. Previously, we have reported that depressive, cyclothymic, irritable and anxious temperaments are risk factors whereas the hyperthymic temperament is a protective factor for suicidal behaviour, at least for suicide attempters. This is in line with recent genetic studies showing that the short allele of serotonin transporter gene promoter (5-HTTLPR) was significantly related to depressive, cyclothymic, irritable and anxious temperaments (but not to the hyperthymic temperament) and individuals with the short allele of the 5-HTTLPR and major affective disorders have more microstructural white matter abnormalities in specific brain regions.

**Conclusions:** In subjects with mood disorders, some temperament profiles in addition to WMHs presumably play a critical role in the emergence of hopelessness and suicidal behaviour. Differences among temperament profiles associated with WMHs may be used as biological markers for clinically grouping subjects at higher risk both for the emergence of mood disorders and suicidal behaviour (highly lethal suicide attempts) and this may have relevant implications for treatment.